

REGIONAL ANALYSIS OF LOCALISATION FACTORS - APPLICATION ON THE CZECH REPUBLIC

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Abstract: The paper deals with identification of location attractiveness of Czech regions from the point of view of foreign direct investment through utilisation of location factors analyses. Chosen group of location factors - business, infrastructure, labour, local, cost and environmental factors and corresponding weights in decision-making processes were taken from official study issued by EU.

Key words: location factor, investment attractiveness, foreign direct investment, regional analyses

Continual growth in the volume of foreign investments belongs to the major characteristics of the process of globalisation. In this context, the most important part is formed mainly by direct investments (mergers, acquisitions, joint ventures, investments on a green field) which are, together with growth in education level, from the experts' point of view considered to be the most significant long-term factors of economic development. Such statement may be supported by the fact that positive effects of direct investments are not limited only to the increase in level of employment or generating value added. However, they also serve as a stimulus for introduction of new technologies and managerial practices, which consequently support the development of education basis. In case of the post-communist transition economies, the importance of foreign investments is enhanced by the opportunity to get easier access to the markets of the most developed countries, and also by their fundamental influence on microeconomic, respectively corporate environment. Thus, foreign investment may be considered to be the most effective tool of economic restructuring. Such tool corresponds to perspective needs for creating the information-based competition, which

would consequently replace the traditional cost-based competition. It is possible to declare that the importance of foreign direct investment for the Czech Republic is at present finally respected. The system of investment incentives, concerning mainly the investments on a green field, may serve as a significant proof. Similar systems were, however, introduced earlier in other countries of Central and Eastern Europe, namely Poland and Hungary, which form strong competition for the Czech Republic. Particularly, the Polish special economic zones are direct competition for North Moravian and also for East Bohemian regions. The competition influence of Germany and Austria is (in this context) of secondary importance, owing to the fact that these countries attract investors with other strategic priorities (However, the government incentive in Germany may reach up to 300,000 EUR per one created job). Considering the branch structure of the investments in the Czech Republic, the most important are industrial investments (mainly in high-tech industries), which to a certain extent generate development in production services, including research. Such priority may be traced in the activities of Czechinvest, the government agency for promoting foreign investments.

Success in acquiring foreign investments is determined by investment attraction, which is evaluated on various hierarchical levels (countries, regions, cities, respectively municipalities). Moreover, the relevant institutions (the government, regional authorities, specialised agencies) have a significant influence in the area of presenting particular advantages of disposable supply of investment opportunities. The focus is then turned to the regional evaluation of investment attraction.

The investment attractiveness of regions, respectively municipalities, may be evaluated on expert level on the basis of the localisation factors analysis. The selection of localisation factors corresponds to empirically proven preferences of important investors. In our case, we took into consideration preferably the data presented in official EU publications, further the opinions and views of the most important foreign investors active in the Czech Republic and also the result of our own research carried out among the municipal authorities. Selected localisation factors were aggregated to 6 groups. Their significance positions, which are specified in the table, correspond to importance of each factor in localisation decision-making of investors. Since the investors have different needs for optimal combination of localisation factors according to the field of their activities, corresponding analyses were carried out separately for branch groups of the manufacturing industry, distribution and production services.¹

The analysis covers 79 selected cities and municipalities in the Czech Republic. The methodology conforms to the logic of the regional evaluation attitude, as it respects the historically created system of internally integrated regions. The real interpretation of the findings comes out of the hypothesis stating that the investment attraction of the region centres limits the attraction of other municipalities in the region. In case of industry and distribution, the most important are factors of market accessibility and vicinity of main customers. The factor of market accessibility provides an overall

¹ Production services include the following: Money, insurance, trade, information technologies, consulting, projecting, intermediary and research services. The importance is stressed on localization factors of the sub-branch of progressive services (first four types of services, the remaining services are sorted into the sub-branch of support services).

information on the suitability of location, based on the accessibility potential of the most significant concentrations of domestic and foreign demand (i.e. 11 Czech agglomerations with population of more than 100000 people, respectively 7 agglomerations in Germany, 2 in Slovakia and one in Poland and Austria). Basic difference in credibility of the factors of market accessibility and vicinity of main customers is caused by the fact that the former factor accents long-term inertia of residential structure, whereas the latter focuses on production and trade interactions occurring in the business sphere. As for the group of infrastructure factors, in case of industry and distribution, major role is played by quality of road and railway systems. Interpretation of these factors respects the government concept of development of express corridors and communications. For investors in services, the most important factor seems to be the quality of telecommunications, which is slowly reaching Western standards.

Table 1 Significance of localisation factors according to selected type of investment activity

	Manufacturing Industry	Distribution Activities	Production Services
Trade Factors:			
Market accessibility	11	14	9
Customer vicinity	11	10	6
Presence of foreign firms	4	-	7
Support services	2	5	8
Subtotal	28	29	30
Infrastructure Factors:			
Quality of road and railway systems	11	12	8
Vicinity of major airports	4	8	6
Quality of telecommunications	2	4	10
Subtotal	17	24	24
Labour Factors:			
Availability of labour	12	10	8
Quality of labour	8	8	6
Flexibility of labour	2	2	2
Subtotal	22	20	16
Local Factors:			
Supply of land available	11	9	-
Education basis	-	-	8
Financial participation	5	5	3
Subtotal	16	14	11
Cost Factors:			
Labour costs	6	4	5
Land costs	5	4	-
Renting costs	-	-	7
Subtotal	11	8	12
Environmental Factors:			
Urb. and environ. attraction of the locality	4	3	4
Environmental quality of the locality	2	2	3
Subtotal	6	5	7
Total	100	100	100

The infrastructure factors, as for their importance, are comparable with labour factors. This group is primarily represented by the factor of general availability of labour force (which respects also regional mobility of labour force and the supply of jobs available), and also by the factor of labour quality. This factor respects variety in investors' demand for the level of qualifications of both manual workers and brainworkers. The importance of local, respectively regional local factors clearly lags behind the first three groups of factors. Nevertheless, considering the character of their causation, a condition of *sine qua non* becomes often valid (for instance, if an industrial investor seeks for a suitable locality for an investment on a green field, the absence of industrial zone or insufficient quality of available land means disqualification of the given locality). For production services, the appropriate factor was specified as the factor of institutional support of the development in education basis. This factor shows regional level of the infrastructure of universities and technical parks (19 universities and 30 technical parks were included in total). The cost factors show, to a certain extent, the level of entrepreneurial environment. Lower quality of such environment is compensated by lower costs of labour and realties. Significantly, high level of regional differentiation in prices of land and particularly office rentals is conditioned by their strong dependency on hierarchical position of urban centres. The interpretation of environmental factors comes out of the factors, which have general influence. Investors apprehend particularly extreme cases - for example, high level of ecological devastation may have a significant influence on the final decision.

Generally, it is possible to state that investors' preferences follow the size hierarchy of centres. However, the preferences of size come into balance on the level of towns with population of less than 50,000 people. These centres are attractive mainly for industrial investments. (Investors in services and distribution branches strongly prefer metropolitan areas, usually rich for information sources, business opportunities and contacts).

The outcomes of the analysis of localisation factors provide a clear picture of investment attraction of the regions in the Czech Republic. The most "investment attractive" are the regions of Prague (in our analysis joined with Central Bohemian Region), followed by the regions of Brno, Pilsen and Pardubice. Wider defined Prague region is a typical metropolitan region offering localisation advantages particularly for service and distribution branches (Prague also possesses all necessary prerequisites for localisation of territorial headquarters of multinational corporations). It has the best conditions even for industry investments. In this case, there are suitable fully prepared localities with near hinterland of the capital. Being the most important pole of development Prague positively influences the development in most of other Czech regions. This fact has been proved by the outcomes of the process of formation of development axes of investment attraction, which interconnect major centres with their above average levels (see charts). In fact, these axes allocate the most suitable localities for large-scale investments of foreign investors. From the territorial point of view, major importance is set on industrial investments, which bring along the so-called spread effects. The principle of spread effect lies in the diffusion of demand, modern technologies and managerial know-how along the development axes. Favourable

conditions for the localisation of industrial investments are present particularly in Pilsen and Pardubice regions (the corresponding attraction of the centres shows also the fact that both were enlisted in the "short list" of American corporation Intel). The localisation attraction of Pardubice region is stressed by trade factors, whereas the attraction of Pilsen region is accentuated by trade factors. Partial metropolitan character may also be seen in the case of Brno region (high investment attraction for production services). The comparably lower attraction of Brno region for industrial investments coheres with corresponding position in trade factors (esp. longer distance from main concentrations of foreign demand), and further with lower quality of land supply for large industrial investments in Brno.

The second group of regions with average investment attraction is formed by the regions of České Budějovice, Ústí nad Labem, Liberec, Hradec Králové, Olomouc and Ostrava. In fact, these regions do not possess above-average values of investment attraction in any specified group of localisation factors (the only exception occurs in case of the region České Budějovice, where there are higher values of environmental factors). On the other hand, if we consider only centres alone, all of them show above-average investment attractiveness in some groups of factors. Ostrava may serve as a clear example, since it is one of the three most important centres of the development of education basis in the Czech Republic, and similar cases may be seen with České Budějovice and Hradec Králové. The investment attraction of Ostrava region is markedly limited, particularly for industrial investments, by the impact of trade and environmental factors. Perspective solution of this problem is substantial for major part of Moravia. The macroeconomic dimension of the problem lies in enlarging the intensity of trade interactions in the Northeast - Southwest direction (i.e. with Poland, Austria and Italy). The priority of this axis is partially proved by geographic allocation of VI B branch of the multimodal transport corridor TEN. The investment attraction for production services of both remaining regions is confirmed by their location on the present development axes. In case of Hradec Králové, the location near Pardubice (with its "industrial" attraction) offers an opportunity to refine production service in future. The development of České Budějovice region is positively induced by "neighbourhood effects" of German economy. The regions of Ústí nad Labem, Liberec and Olomouc are, unlike the regions mentioned above, suitable mainly for investments into traditional industrial branches. There are also partial strong points, which to a certain extent lighten the impacts of localisation drawbacks. For example, there is an articulation with main development axis of the Liberec region, then there are specific incentives for developing investment activities for small and medium businesses (mainly in the fields of distribution and production services) in the core part of Olomouc region, and perspective opportunities of "neighbourhood effects" in the Ústí nad Labem region (Saxon city Dresden is generally considered to be a metropolis with large development potential). In coherence with the outcomes of our analysis, the lowest investment attraction shows the following regions: Karlovy Vary, Jihlava and Zlín. In case of these regions, above-average values of certain factors are present only rarely, even for the centres alone. This fact corresponds to small size of the centres (Karlovy Vary, Jihlava), respectively with peripheral location of Zlín region, which is thus very unattractive for

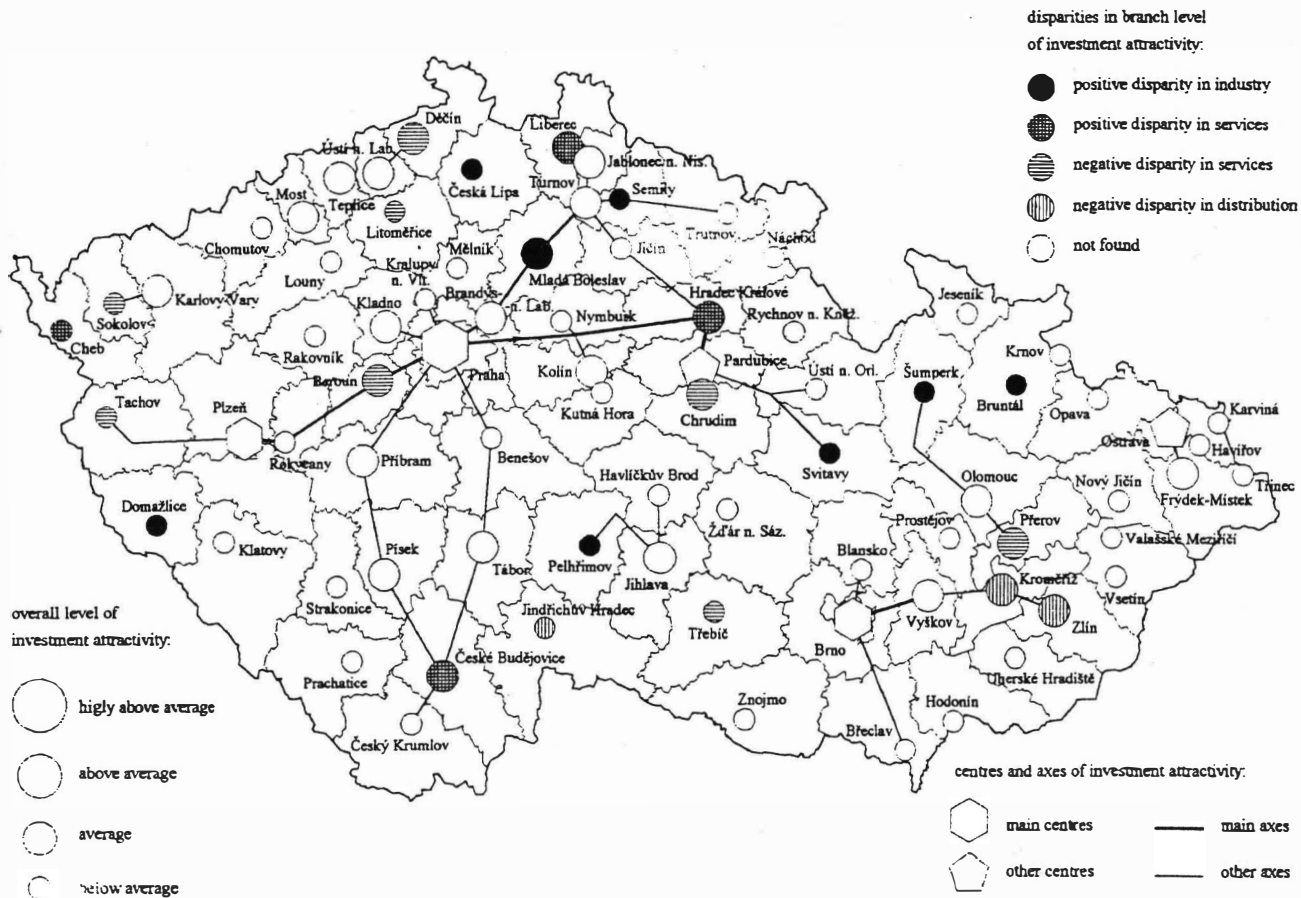


Fig. 1 Territorial concentration of investment attractiveness

distribution, for example. Karlovy Vary region offers certain positive prerequisites for production services, which corresponds with its position of the most important spa centre in the Czech Republic. In the other two regions, production services are replaced by manufacturing industry, for which Jihlava region offers specific incentives aimed at small and medium businesses. A certain advantage for Zlín may be seen in the articulation with Brno development axis.

Last, it is necessary to point out the fact that further positive development of the Czech economy is clearly conditioned by intensive orientation on international markets, of which an important segment is the market of investments. In this context, we may consider the availability of relevant information for foreign investors to be one of the decisive factors of success. Such information unquestionably include the information on regional differentiation of investment attraction, respectively the quality of entrepreneurial environment (those who are interested in acquiring more detailed information on the subject may see publication "The Investment Attraction of Selected Cities In the Czech Republic", which is available at the Faculty of Economy and Social Sciences of the Masaryk University in Brno)

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Resume

Regionální analýza lokalizačních faktorů - aplikace na příkladu České republiky

Růst objemu zahraničních investic lze označit za jeden z charakteristických rysů procesu globalizace. Jejich přínosy pro konkrétní zemi nebo region nespočívají pouze ve zvýšení zaměstnanosti či tvorby přidané hodnoty, ale i v zavádění nových technologií a manažerských praktik, podporujících rozvoj znalostní báze. Z pohledu transformujících se ekonomik postkomunistických zemí je význam zahraničních investic umocňován získáním snazšího přístupu na trhy vyspělejších zemí a zejména jejich fundamentálním významem na změnu podnikového prostředí. Úspěšnost v získávání zahraničních investic je v rozhodující míře podmíněna investiční atraktivitou, kterou lze nejlépe hodnotit na základě analýzy lokalizačních faktorů - v našem případě byly vybrané lokalizační faktory agregovány (ve shodě s údaji obsaženými v oficiálních

publikacích EU) do 6 skupin: obchodní, infrastrukturní, pracovní, lokální, nákladové a environmentální faktory. Na základě provedených analýz, při kterých váhy jednotlivých faktorů korespondují s jejich významem v rozhodovacích procesech velkých investorů, byla analyzována významná centra 14 stanovených regionů resp. krajů ČR. Z výsledků analýz vyplývá, že investičně nejatraktivnějšími regiony ČR jsou především pražský a střeveský a dále brněnský, plzeňský a pardubický region a naopak nejméně atraktivními karlovarský, jihlavský a zlínský region (analýzy zohledňují pouze předpoklady pro alokaci nových investic na zelené louce nikoliv pro zahraniční akvizice v tuzemských podnicích resp. zakládání joint-ventures).